

Economic Importance of Algae

1) Algae constitute the link of food chain

Reserve food materials of algae

eg. Algae { Fat & Vitamin in diatoms
Starch, decomposed with oil green algae
Sugar & glycogen in BGA
Polysaccharides in Eoglaena

Utilized by Fresh.

Larger sea Animals
and
Man.

2) Algae is useful in Fish Culture

Siamese Fish

Tilapia mossambica

Feed on

Filamentous Algae

ex.

Scenedesmus

→ Algae

is exclusively used

as fish meal for the culture of

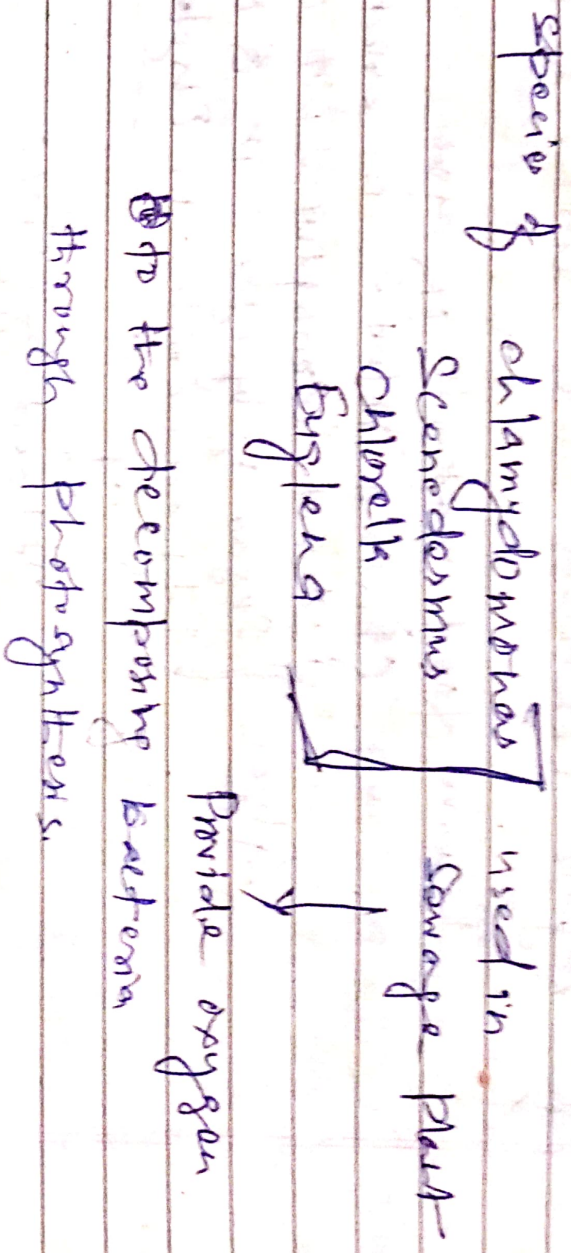
T. mossambica

→ Fish

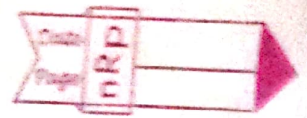
3) Algae is used for Recreational purposes

Algae with fish used at recreational
Area such as lakes and streams

4) Algae is useful in Waste Treatment
Plants.



Classification of Algae



Basis of Classification of Algae

- 1) Chemical & physical feature of the cell wall
- 2) Nature and properties of pigments that contribute to photosynthesis.
- 3) Morphological characteristics of cells and thalli
- 4) Habitat
- 5) Flagella Number and the location of their insertion in motile cells
- 6) Reproductive Behaviour.

Scientist

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| → 1) | F.E. Fritsch's classification | (1935) |
| → 2) | G.M. Smith's | " (1950) |
| → 3) | Pound's | " (1973) |
| → 4) | Bold & Wynne's | " (1985) |
| → 5) | Robert Edmund Lee's | " (1989) |

1) F.E. Fritsch's Classification (1935)

— The most comprehensive and authoritative classification of Algae



In his Book

'The Structure and Reproduction of Algae'

F.E. Fritsch divided Algae into 11 classes on the following basis.

- Number & Mode of attachment of flagella in the motile cells.
- Thallus Structure.
- Chemical nature of pigments.
- Reserve food materials.
- Mode of Reproduction.
- Variation in the life cycles.

11 classes are

1. Chlorophyceae
2. Xanthophyceae
3. Chrysophyceae
4. Bacillariophyceae
5. Cryptophyceae
6. Dinophyceae
7. Chloromonadineae
8. Euglenineae
9. Phaeophyceae
10. Rhodophyceae
11. Myxophyceae ~~Cyano~~ (Cyanophyceae)

2. Smith classification (1950)

- Classified Algae into seven divisions.
- These divisions include one or more classes.

1. Chlorophyta: Chlorophyceae & Charophyceae
2. Chrysophyta: Chrysophyceae, Xanthophyceae & Bacillariophyceae
3. Phaeophyta: Dinophyceae & Desmophyceae